REMARKS

Claims 1, 27 and 31 have been amended to recite that the thermoplastic elastomer has a melt flow index greater than about 8g/10min at 200°C/5.0kg. Support for the foregoing amendment is examplified in the Specification, page 14, lines 14-22.

Claim 29 has been amended to correct a typographical error.

No new matter has been added. Entry is requested. Accordingly, upon entry hereof, claims 1, 3, 5-6, 22-23 and 27-34 will be under consideration or reconsideration.

Applicants now turn to the substance of the Action, in which rejections have been advanced against the pending claims under 35 U.S.C. § 103.

Rejection under 35 U.S.C. § 103

Claims 1, 3, 5-6, 22-23 and 27-34 are rejected under e 35 U.S.C. § 103(a) as being unpatentable as allegedly being obvious over Tomita et al. (US 2002/0061966, hereinafter "Tomita"). It seems to be the Examiner's position that Tomita (1) shows thermoplastic elastomers in hot melt adhesive composition, [0015]; (2) discloses the same amount of the elastomer [0016]; (3) disclosed tackifiers [0023]; and (4) discloses ionomer resin [0023]. The Examiner acknowledges that Tomita fails to exemplify ionomer. The Examiner urges that one would be motivated to select the ionomer resin from [0023]; and as such the selection would be prima facie obvious (Office Action dated October 6, 2009, page 2; fourth paragraph).

Applicants disagree.

To establish a *prima facie* case of obviousness, there must be some reason, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine reference teachings. *KSR International Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007). Moreover, the cited reference must teach or suggest all the

claim limitations, and a reasonable expectation of success, must be found elsewhere than in Applicants' disclosure. That is, the claim recitations must be found in the cited reference, the nature of the problem to be solved, or in the knowledge/understanding of the person of ordinary skill in the art. MPEP § 2143; *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Here, Tomita does not support a *prima facie* case of obviousness.

Tomita is directed a hot melt composition suitable for sealing parts for purpose of dust control and waterproofing [0002]. Unlike Tomita's adhesive, Applicants have discovered that use of an ionomer additive in a thermoplastic elastomer based hot melt adhesive provides excellent toughness and which makes it particularly advantageous when used in elastic attachments. One skilled in the art would not look to Tomita's dust control and waterproofing sealant to develop a hot melt adhesive for elastic attachments.

Moreover, Tomita's hot melt adhesive contains, as essential ingredients, (1) a high-molecular weight styrene block copolymer, (2) a polyphenylene ether resin and (3) a viscosity adjuster (Abstract). In fact, Tomita teaches that it is essential for the hot melt adhesive to contain a "...high molecular weight styrene block copolymer having a number average molecular weight (Mn) of 100,000 or more..." for example Kraton G1650 [0014, 0015 and 0032]. It is well understood in the art the molecular weight polymer is inversely correlated to melt flow index value. The high molecular weight Kraton G1650 has a melt flow index value that is less than 1.0g/10 min at 200°C/5.0kg according to Kraton G SEBS/SEPS Product Sheet (Appendix I). In contrast to Tomita's hot melt adhesive, the instant adhesive is "... prepared with low molecular weight components for application at low temperature" (page 1, line 24). The instant adhesive utilizes thermoplastic elastomers with high melt flow index value (which correlates to a low molecular weight thermoplastic elastomer), specifically, melt flow index

value greater than about 8g/10min at 200°C/5.0kg. If Tomita's high molecular weight thermoplastic elastomer were replaced with in the low molecular weight thermoplastic elastomer of the instant adhesive, it would result in a very different adhesive. Such resultant adhesive would not flow at low temperature. The instant adhesive is directed to applications at low temperatures, particularly for elastic attachment adhesives.

Second, Tomita teaches that a desired heat resistance cannot be achieved unless a polyphenylene ether resin or a modified polyphenylene ether resin is added in conjunction with the high molecular weight styrene block copolymer [0011]. The instant hot melt adhesive does not use a mixture of a high molecular weight thermoplastic elastomer with a polyphenylene ether resin or modified polyphenylene. The instant adhesive does not require polyphenylene ether resin or a modified polyphenylene ether resin with the high molecular weight styrene block copolymer. Again, such combination would not result in a low temperature application adhesive, particularly for elastic attachment adhesive.

The Examiner suggests that a skilled artisan would be motivated to select the ionomer resin from Tomita's paragraph [0023]. However, the inclusion of an ionomer resin would not render obvious Applicants' claimed low application hot melt adhesive. Paragraph [0023] merely lists possible additional ingredients that may be blended with the essential ingredients (a high-molecular weight styrene block copolymer, a polyphenylene ether resin and a viscosity adjuster). Paragraph [0023] lists 7 genus and 9 species, and of those, only one of these species mentioned is an ionomer resin. Applicants have discovered that use of an ionomer additive in a low molecular weight thermoplastic elastomer provides excellent toughness and which makes it particularly advantageous when used in elastic attachments. The instant invention, as recited in the claims, requires the use of a high melt flow index (low molecular weight) thermoplastic

elastomer. As such, Tomita fails to teach, suggest or provide a reason to modify the prior art to arrive at the claimed invention; it fails support a *prima facie* case of obviousness.

Reconsideration and withdrawal of the Section 103 rejections of claims 1, 3, 5-6, 22-23 and 27-34 are therefore respectfully requested.

Conclusion

Applicants believe that the foregoing constitutes a complete and full response to the Office Action. Accordingly, an early and favorable reconsideration of the rejections and an allowance of all of pending claims are earnestly solicited.

Respectfully submitted,

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January 6, 2010

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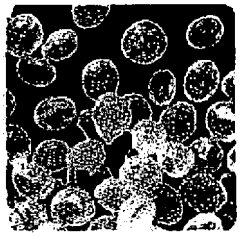

Kraton G SEBS and SEPS polymers are the strongest, the most highly dilutive, and the most compatible with polyolefins and mineral oils of all the styrenic thermoplastic block copolymers. Kraton G polymers are second generation styrenic block copolymers with a hydrogenated midblock of styrene-ethylene/butylene-styrene (SEBS) or styrene-ethylene/propylene-styrene (SEPS). They are intended for use where UV resistance, high service temperature, and processing stability are essential. Kraton G polymers are the material of choice for production of soft, strong compounds for handles and grips, elastic components in diapers, oil gels for telecommunications and medical applications, impact modifiers of engineering thermoplastics, flexibilizers/toughners for clear polypropylene.

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Properties Legend

Property	Units
%Styrene	wt%
Hardness	Shore A
%Diblock	wt%
%Oil	wt%
Solution Viscosity	Pa.s @ 25% in Toluene @ 25C
Melt Flow	grams/10 min @ 200C, 5 kg

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North America

	SEBS	-	-	-	0	-	-	-	
(Generic)	SEP	-	-	-	0	-	-	-	
(Generic)	EP Star	-	-	-	0	-	-	-	
(Generic)	Compound	-	-	-	0	-	-	-	
A1535 H	SEBS	57	83	-	-	-	<1		
A1536H	SEBS	42	65	-	-	-	7		
G1633 E	SEBS	30	-	-	0	0.3	-		-
G1637 M	SEBS	-	-	-	-	-	-	-	
G1641 H	SEBS	33	52	<1	0	>50	<1		
G1642 H	SEBS	21	48	<1	0	>50	<1		
G1643 M	SEBS	20	52	-	0	0.2	18		
G1645 M	SEBS	12.5	35	-	0	-	3.25		
G1650 E	SEBS Linear	30	72	<1	0	8	<1		-
G1650 M	SEBS	30	72	<1	0	8	<1		
G1651 H	SEBS	33	60	<1	0	>50	<1		
G1652 M	SEBS	30	70	<1	0	1.8	<1		
G1654 E	SEBS	31	63	<1	0	>50	<1		-
G1654 H	SEBS	31	63	<1	0	>50	<1		
G1657 M	SEBS	13	47	29	0	4.2	8		

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G1660 H	SEBS	30	72	<1	0	8.0	<1		
G1701 H	EP	37	64	100	0	>50	<1		
G1701 M	SEP	37	64	100	0	>50	<1		-
G1702 H	SEP Linear	28	41	100	0	-	<1		
G1726 M	SEBS	30	70	70	0	0.2	19		
G1740 M	EP Star	6	-	-	-	-	-		
G1765 M	EP Star	-	12	-	0	-	4	-	
G2705 GU-N	SEBS Compound	-	-	-	-	-	-		
G2708 GU-N	SEBS Compound	-	-	-	-	-	-		
G2832 GS-N	SEBS Compound	-	-	-	-	-	-		
G4609 H	SEBS with Oil	33	22	<1	47	11.0	<1		
G4610 H	SEBS with Oil	33	36	<1	31	>50	<1		
G7705 GI-B	SEBS Compound	-	45	-	0	-	-		
G7720 GI-B	SEBS Compound	-	60	-	0	-	-		
G7820 GU-B	SEBS Compound	-	90	-	0	-	-		
MD1537 H	SEBS	60	78	-	-	-	5		-